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HIGHLIGHTS OF A SENATE GOVERNMENTAL AFFAIRS COMMITTEE HEARING
May 18, 1989

Time: 9:30 a.m.

Location: Dirksen Building, room 342 Topic: Nuclear and Missile Proliferation Witness: CIA Director William Webster

The editor of the report is Robert Doherty. Steve Ginsburg, Tim Ahmann and Eric Beech also are available to help you. If you have questions, please call 898-8345. For service problems, call 1-800-8-REUTER.

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PREPARED OPENING STATEMENT OF SEN. JOHN GLENN Exactly fifteen years ago today, on a hot day in a remote, dusty corner of a South Asian desert, the world awoke to the news that India had detonated a nuclear device. Although India declared at the time that this was a so-called ''peaceful nuclear explosion'' -- a phrase that now seems to come from another age -- this event triggered a major international effort to tighten controls over the global spread of the bomb. The concern was not so much with India -- which, to its credit, has wisely chosen not to develop a nuclear arsenal -- but with the new uncertainties that were created and now risks that someday, somehow, we would all become embroiled in a nuclear holocaust.

That was the way things were when I first entered the Senate, and I have devoted a substantial amount of my career here to preventing just such a nightmare from occurring.

To identify what new steps are needed to stop the spread of these weapons, we must learn some hard lessons from our past experiences. The last declared nuclear weapon state was China, which exploded its first device in 1964. Since then, the lack of any new declarations of nuclear tests in additional countries -- good news though it is -- should not give us any grounds for complacency:

We see Pakistan continuing its pursuit of the bomb, and both India and Pakistan facing off in what may be an arms race that involves both nuclear weapons and ballistic missiles. Any day now India may test launch its now Aqni intermediate-range

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ballistic missile.

We see Pakistan having joined South Africa, India and Israel into the club of ''De Facto Nuclear Weapon States.''

We see Argentina, Brazil, Israel, Pakistan, India, China, and other nations continuing their refusal to join the international community of nations that has signed the Nuclear Nonproliferation Treaty. We see others who have signed -- like Iraq, Iran and Libya -- showing continued interest in acquiring nuclear weapons and ballistic missiles.

We see a dangerous proliferation of missile technology worldwide, despite the previous Administration's efforts to establish an international missile Technology Control Regime technology that can be used to deliver nuclear as well as chemical or biological weapons.

We see report after report of weaknesses in the nuclear export control systems of our closest friends and allies, and have witnessed for years the resistance of these friends and allies to our long-standing concerns about these problems. Some of these problems now appear to be getting some attention, but it remains to be seen if these reforms will be ''too little, too late.''

We see the International Atomic Energy Agency -- which is charged to ''safeguard'' peaceful international nuclear commerce -- handicapped by a zero-growth budget, despite the near impossible tasks it faces in the future of keeping track of hundreds of tons of toxic, weapon-usable plutonium that Japan, France, and other notions wish to use and transport as a commercial nuclear fuel.

Fortunately, we have here today three spokesmen for a new Administration, an Administration that has publicly committed itself to a strong national policy against the spread of nuclear weapons and missiles.

We will hear from CIA Director William Webster, whose recent speeches and testimony on the proliferation of chemical and biological weapons and missiles have helped us all to understand how these weapons threaten our security. Today, he will provide additional details about the nuclear proliferation threat. I am sure that the material he will discuss will underscore that we have a lot of work to do before these ''Weapons of Hell'' -- as A.M. Rosenthal aptly called them -- are under effective control.

We will hear from Ambassador Ronald Lehman, the new Director of the Arms Control and Disarmament Agency, who arrives at his post with fresh experience working on proliferation issues as Assistant Secretary of Defense. We are grateful to have him here today for his first public testimony as Director of ACDA.

We are also fortunate to have with us today Ambassador Reginald Bartholomew, the Undersecretary of (State)

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for Security Assistance, Science and Technology, who has responsibility for nonproliferation policy at the State Department. Ambassador Bartholomew is also making his first appearance before Congress In his new position.

The hearing today will give us the opportunity to hear from the now Administration about the threats we face from nuclear and missile proliferation, the remedies that are being considered to these problems, and the organization of their efforts to find some solutions.

Today's testimony and questions will help us decide about the stops we must take tommorow, as we continue to struggle to achieve our nonproliferation goals. It is no secret that I had major differences with the previous Administration in this area. I look forward, however, to working with the now Administration to restore nonproliferation to a top national priority.

CIA DIRECTOR WILLIAM WEBSTER (as delivered): Thank you, Mr. Chairman.

I welcome this opportunity to discuss publicly issues that consume a substantial portion of the time and resources of the intelligence community: the proliferation of nuclear weapons, and missiles to deliver them.

We cannot now tell you when or where these weapons may be used. We can say that the odds-on use are growing as more countries develop the technologies to develop old scores by new means.

Mr. Chairman, your long and distinguished leadership on nuclear issues has helped keep that issue near the top of our national security agenda. Senator Ross' eight years of service on the Senate Select Committee on Intelligence have given him insights into the unique intelligence challenges associated with the issues that we consider today.

Mr. Chairman, the intelligence community can develop critical information about the spread of nuclear weapons and missiles, and the intentions of countries with these weapons. The wisdom required to formulate policies to deal with proliferation is shared by the executive and the legislative branches of our government.

I want to begin by thanking the committee for understanding my need to be circumspect in my testimony this morning in order to protect some of our more sensitive sources and methods.

I'll not be able to share detailed intelligence information at this forum.

However, we can have a meaningful discussion about many of the fundamental issues, and elements of the issues.

I'll leave the policy implications of the

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intelligence we provide to my executive branch colleagues who will also testify today, and to you and your colleagues in the Congress.

The Central Intelligence Agency has been collecting and analyzing intelligence on the proliferation of nuclear weapons for decades. We employ some of our most sophisticated collection methods and analytical techniques to address this critical issue.

Generally, we focus on determining the status of nuclear development in all countries. On acquisition of nuclear materials by countries suspected of developing nuclear weapons programs, and any general procurement that would support nuclear programs in countries that do not now possess nuclear weapons.

We could use our full range of intelligence collection capabilities and strategies to provide policymakers timely and finished intelligence about nuclear developments. Our collection and analysis begins with the premise that given a reasonably sophisticated nuclear energy and research program, any nation requires many years to develop a nuclear weapons capability.

As a nation begins to develop nuclear weapons, we have found that technical and political tipoffs provide key indicators for intelligence analysts. Our analysts not only examine technical capabilities and programs; they also consider whether the activities really make sense for a purely civilian nuclear program.

For example, we would be concerned if a nation began developing a difficult and expensive uranium enrichment capability not required by existing nuclear power reactors.

While our intelligence successes in this field cannot be discussed publicly, we have helped slow down the spread of nuclear weapons through timely intelligence that has enabled our policymakers to take appropriate action to discourage weapons development.

Future success will be hard to come by. Today we are finding that tracking both nuclear development and procurement is more complicated.

For example, we're beginning to see procurement of unrelated technologies for nuclear missile and CBW programs through common purchasing agents. These agents are often associated with either an amorphous science and technology organization, or with a large industrial user.

Consequently, identifying the real purpose for which a suspect item was procured is now more difficult.

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x x x more difficult.

WEBSTER (cont.): Our collection and analytical problems are, of course, compounded by sales of items that could be used either for purely legitimate industrial purposes or for the production of nuclear weapons. These so-called dual use technologies require us to track an item to its final destination.

We often accomplish our mission, but the effort is extremely costly in terms of our time and very scarce resources.

The key to a nuclear weapons program is acquiring plutonium 239 or highly enriched uranium. Sensitive and highly specialized technologies are required to obtain enough of these materials for even the simplest nuclear weapon.

The ability to acquire and master these technologies determines how quickly a nation can develop and produce nuclear weapons.

While plutonium is important, potential proliferators are dependent on a broad range of aid from states with nuclear weapons. Even some of the most advanced countries need more than hardware. They need technical expertise, from the chief scientists down to the technicians who run the plant.

Furthermore, after they acquire the knowledge and equipment required for nuclear weapons development, we find that they have continuing need for spare parts, and expert maintenance.

From an intelligence perspective, foreign assistance is a wild card in assessing progress towards weapons development. It helps Third World nuclear programs leapfrog technical obstacles that might take years, or perhaps a decade, to overcome with their own limited resources.

Since the early 1960s, we have found foreign suppliers providing the following types of assistance for the possible development of nuclear weapons.

Complete nuclear facilities; technical and operations expertise; significant equipment and material; ancillary equipment and material and training for personnel.

As this committee well knows, sensitive nuclear

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technologies are subject to U.S. and international expert controls. However, we have found that nuclear technology is acquired illicitly and clandestinely through front companies; false export documents; and multiple transshipment points.

We're finding that regulations are being circumvented by ordering equipment or material in quantities that fall just below the export control guidelines, but which in the aggregate would be subject to controls.

Many commercial suppliers know exactly what their products will be used for. Others suspect, but perhaps care more about the dollar, mark, yen or frank, than about the consequences of nuclear proliferation.

We all become discouraged at times about the continuing spread of nuclear weapons, despite the nonproliferation treaty. The efforts of the international atomic energy, and various laws designed to check nuclear proliferation.

But I want to reflect for a minute on the value of the various nuclear control regimes from an intelligence perspective. As an intelligence organization, we must be concerned about the development of nuclear weapons in any country, or by any subnational group.

If a country refuses to join a nuclear control regime, we have a clear signal that we should focus additional attention on its nuclear development programs. And we certainly do.

From my perspective, the nonproliferation treaty, and the activities of the international atomic energy, help us use our intelligence resources more effectively to track nuclear developments.

We've also seen the deadly consequences of missile proliferation. Ballistic missiles armed with conventional warheads were used against civilians when Iran and Iraq launched scores of missiles during the war of the cities.

Iraq's ability to hit Tehran caused a sizeable portion of the population to flee. We have found that the use of missiles in war against the cities has had an impact beyond Iran and Iraq.

The demand for ballistic missiles has increased among Third World governments.

Because the ability to develop a nuclear or other weapon or mass destruction to a distant target affects both regional and global stability, ballistic missile programs are as important a target of intelligence collection and analysis as the weapons they carry.

To some extent data concerning the status of missile development programs is less difficult to track than nuclear weapons development.

New missile systems must be tested thoroughly, and in

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the open, while much of the work involved in the development of nuclear weapons is more easily concealed in the labs.

However, the intelligence challenge associated with discovering the initial intent to develop a missile, and to acquire the expertise and material to do so, is about the same as for nuclear weapons.

Ballistic missiles enter Third World arsenals most quickly through the purchase of operational missile systems. The Soviet Union has been a traditional supplier of short-range ballistic missiles. It has sold Scud B missiles widely in the Middle East.

Ironically, the Soviets may soon be competing with an old client, North Korea, which now manufactures its own copy of Scud.

China has emerged as a willing supplier, as evidenced by its sale of the CSS-2 intermediate range ballistic missile to Saudi Arabia. China is actively promoting the export of shorter-range ballistic missiles.

A mix of financial and political objectives appear to motivate these sales.

In the long term, many countries will not want to rely on foreign nations for their arsenal of strategic missiles. By the year 2000 at least 15 developing countries will be producing their own ballistic missiles.

Although may missiles being developed by these countries are not as accurate as U.S. or Soviet weapons, they are cause for great concern.

The Scud missiles Iran and Iraq used in the war of the cities were first produced in the Soviet Union in the 1950s. Nevertheless, they hit their targets in Iran and Iraq. Even 1950s technology can become a truly strategic weapon in a region of conflict such as the Middle East.

Like nuclear weapons programs, Third World missile programs rely on foreign technology to some degree. No country that we know of in the Third World has been able to develop a ballistic missile without some foreign assistance, and none is likely to be able to do so for the foreseeable future.

A number of firms in Western Europe have a well established record of supplying equipment and technical assistance to Third World ballistic missile programs.

This aid has included transfer of critical missile components, and the direct participation by European missile specialists in missile development programs.

As with nuclear programs, countries will often claim falsely that a technology they are seeking for a missile program will be used for an entirely benign and plausible purpose.

Cover firms, which are frequently little more than a post office box number, are established where export controls

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are more lenient.

Recently, we have begun to find that once a nation establishes a procurement network in one field-missiles, for example-that network is used as a conduit for procurement in other fields, such as nuclear or chemical weapons.

We anticipate finding more of an overlap in procurement networks and strategies in many Third World missile and nuclear and chemical-biological warfare programs in the years ahead.

We in the intelligence community fully understand that much of the technology critical to ballistic missile development was passed from the developed to the developing world long ago.

Now, we find Third World countries sharing technology, pooling their resources and technical knowhow in areas such as solid rocket fuel production.

Countries that a few years ago were wholly dependent on foreign suppliers for their own missile programs are now retransferring technology to new Third World missile development efforts.

Not all critical technology has passed from our control. Technology control efforts in the intelligence collection and analysis to support them remain important.

Third World countries often seek new, state of the art Western technology and expertise to overcome critical hurdles in their missile programs.

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x x x missile programs.

WEBSTER (cont.): For example, most Third World nations lack the expertise to build missile guidance systems. Cutting off the supply of guidance technology can cripple a Third World missile program.

Even with the most effective control regimes, and with the best intentions, a country can become an unwitting partner to a ballistic missile program, particularly through dual-use technology.

For example, in the mid-1960s, the United States accepted a young Indian scientist into a training program at the Wallops Island Rocketry Center. This scientist returned to India and with the knowledge he gained from his work on civilian space programs, Dr. Kalom became the chief designer of India's Priv-V and Agne (phonetic) ballistic missiles.

Unfortunately, most technologies applicable to a space launch program can be used in ballistic missile development. Several countries have space and missile programs which overlap. Space programs have been used as a conduit for materials and equipment designed for a ballistic missile development effort.

Moreover, as both the United States and the Soviet Union have demonstrated, space launch vehicles themselves can be converted into ballistic missiles.

The intelligence community is using its resources to support the objectives of the missile technology control regime. We understand the objectives of the seven nations that signed the regime, but note that many of the key countries involved in missile and advanced technology sales are not party to it.

This was highlighted by China's sale of the CSS-2 to Saudia Arabia.

Even for its own members, the missile technology control regime is a voluntary, nonbinding agreement that imposes no sanctions on violators.

The agreement is only as effective as each member wishes it to be. For the intelligence community, the voluntary nature of the regime means that we have to be particularly

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alert for violations.

As always, we face the problem of protecting our sources of intelligence when policymakers take action, based on information about violations.

We're following missile programs in South Asia and the Middle East very closely. We're particularly concerned about the growing missile race between India and Pakistan. Both countries have, within the past 15 months, announced successful test launches of indigenously developed short-range ballistic missiles.

India has also announced it is preparing to launch an indigenously produced medium-range ballistic missile. The regional impact of ballistic missile proliferation is graphically illustrated in the Middle East. Iraq appears to have doubled the range of its Soviet-supplied Scuds by reducing the amount of high explosives in the warhead.

That technique brings Tehran and Tel Aviv within striking range.

Iran recently claims to have produced its own ballistic missile with a range of 200 kilometers. The pace of ballistic missile development in both countries likely will accelerate as they are able to redirect resources formerly devoted to their respective war efforts.

Iraq hopes to acquire and eventually produce the Condor II short range ballistic missile currently under development in Argentina.

Libya, Egypt and Syrian have received Scud missiles from the Soviet Union. Tripoli fired two missiles against U.S. forces on Italy's Lampadus Island after the U.S. air strike in 1986.

Israel placed a small satellite into orbit last September. That launch suggests that Israel has the capability to produce medium or intermediate-range ballistic missiles.

Third World Countries can now deliver nuclear, chemical or biological warheads by artillery or aircraft more precisely and more cheaply than with current ballistic missiles. But we judge that ballistic missiles will be the preferred delivery system of many nations because they cannot be defended against as effectively as artillery or aircraft.

For that reason the deterrent value of ballistic missiles is higher. Furthermore, they are more prestigious than conventional systems.

We believe the missile proliferation problem will affect every region in the world. It will become worse, and may never become better. The intelligence community will continue to provide intelligence support to policymakers' efforts to implement missile proliferation control regimes.

Efforts to implement missile proliferation control regimes will continue. We'll also devote the resources

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required to understand a world in which ballistic missiles loaded with nuclear or chemical or biological warheads are a major factor of the conflicts in each region of the world.

Because the ability to develop a nuclear or other weapon of mass destruction to a distant target affects both regional and global stability, the spread of ballistic missiles has been as important a target of intelligence collection and analysis as the weapons that they carry.

Mr. Chairman, your hearings today provide us with a timely opportunity to review one of the most dangerous conditions that our world faces today.

Nuclear proliferation, combined with the spread of chemical and biological weapons, and the missiles to deliver weapons of mass destruction, have the potential to place many regional conflicts on the brink of catastrophe.

I can assure you that we in the intelligence community will use all the means at our disposal to provide policymakers with the information that they need to confront the problem.

Mr. Chairman, that concludes my formal statement, and I'd be very pleased to respond to questions at this time.

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SENATOR GLENN: Thank you, Mr. Webster, your summary of where we stand these days—and it's a rather grim one, obviously. You know, back when we were working on NPT and the Nuclear Non-Proliferation Act, we felt that we had at that time, back in the mid-seventies, maybe some 12 to 15 years to get some agreement with the Soviets and try and work down the nuclear stockpiles while trying to encourage other nations not to go the nuclear route.

And we were reasonably successful, and I think the current count is we have something like 137 nations that have signed NPT, but, as you indicate, it's voluntary, and some of those nations get a little restive, and we have another one of the five-year reviews coming up--I believe it's next year.

So we're trying to keep everybody in line while we get some of the other negotiations going, but, as you point out, with some 15 countries with ballistic missiles and so on, it's a tough one.

You mentioned that Iraq may be trying to get the Condor II ballistic missile from Argentina, and that would lead me to my first question, along a nuclear line: Is Argentina selling or planning to sell nuclear technology in the Middle East or elsewhere?

WEBSTER: Well, Mr. Chairman, the Argentine government does have a significant nuclear export agreement with Algeria, and it's currently discussing nuclear deals with Egypt, Iran, and Saudi Arabia. Last year Egypt and Argentina signed a 15- year nuclear cooperation agreement, which includes a research reactor, research program, research for waste disposal and radioisotopes production.

It's also agreed to supply a 20-percent enriched uranium to refuel Iran's Tehran nuclear research reactor.

So I think the answer is yes

SENATOR GLENN: Do you then see Argentina moving as a significant supplier of nuclear technology or equipment?

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WEBSTER: I do. There are several reasons why it would seek to do so, and I suppose that our principal intelligence concern here is that they are not being produced under international safeguards, and that produces some considerable environmental hazard as well

SENATOR GLENN: What are the key developments in Argentina's nuclear program you would regard as most significant from a proliferation standpoint?

WEBSTER: Well, I think that's just it, Mr. Chairman, they are not under international safeguards, including uranium enrichment, spent fuel processing, heavy water production efforts. Argentina has refused to sign the nuclear nonproliferation treaty. And we're also frankly concerned about Argentina's efforts to be a nuclear supplier to a third world. We're seeing these transcontinental arrangements between underdeveloped countries

SENATOR GLENN: We've seen competition back and forth in the past in this field between Argentina and Brazil. What are the key developments in the program of Brazil that are most significant from a proliferation standpoint?

WEBSTER: Well, I think I ought to leave that question primarily to the policy makers, but I can tell you that we've noted that Brazil continues to construct and operate unsafeguarded nuclear facilities. We have noted that the centrifuge uranium-enrichment facility that's being constructed about 90 kilometers west of Sao Paulo is a matter of potential concern. Brazilian officials have stated that this plant will produce uranium enriched to less than 20 percent for use in nuclear submarines, research reactors, and power reactors

SENATOR GLENN: How advanced is that submarine effort, Brazil's nuclear submarine effort? Can you tell us that?

WEBSTER: I would not say that it's far advanced, and I think it will probably take them into the next century to come up with something. But it's just another indication of a move into an area that has been highly restricted in the past by people willing to accept controls

SENATOR GLENN: Brazil's been willing in the past to talk to or to cooperate at least to some extent with many nations around the world. Can you tell us what the status is between Brazil and Iraq and what they're cooperation on in the nuclear arena?

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WEBSTER: Well, they signed an agreement in Bagdad about ten years ago for cooperation in the field of the peaceful use of nuclear energy. The major areas of cooperation identified are studies of uranium, supply of national uranium and low enriched uranium for use in nuclear reactors, supply of equipment and construction services for nuclear reactors, security for nuclear reactors, exchange of visits to research and development facilities, and training of human resources.

That's going to expire in October of this year, and

it can either be renewed for a one-year period, or either party can terminate it

SENATOR GLENN: We've been concerned, as I've indicated, what triggered off some of the interest in this whole field was India's explosion back in '74. What is the status of India's uranium enrichment effort now?

WEBSTER: Well, they can produce weapons-grade plutonium. Their first such plutonium production capability was a research reactor built near Bombay with the assistance indicators, and beryllium is usually used to enhance the fission reaction. There are other indicators that tell us that India is interested in thermonuclear weapons capability. I would prefer, if you want more detail, to have a more expert response prepared and submitted for the record

SENATOR GLENN: If you could furnish that for the record, we'd appreciate it. Thank you very much.

What is the principla concern about India's current nuclear program?

WEBSTER: Well, I suppose that there are many ways to put it, but one of the areas that I think is of concern to the policy makers, and certainly to all of us who are watching this, is the rivalry between India and Pakistan which has all the earmarks of a race, and yet there have been no real efforts made in the international community to try to head off that race based on insecurity on both sides of the border.

And I think for those two countries to be devoting so much of their resources in this area is a cause for international concern about stability in the region

SENATOR GLENN: According to India's Department of Atomic Energy, 1986-87 annual report, the Babba (phonetic) atomic research center had conducted studies on the extraction and refining of thorium and lithium, separation of stable isotopes.

Now, the annual report for '87-88 stated the center

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was continuing studies on the recovery and purification of uranium, lithium and helium gas. Studying how to obtain purified lithium has many peaceful applications, but studying how to separate lithium isotopes suggests and interest in thermonuclear fuels. Lithium 6 can be used for thermonuclear devices.

Now, is that information basically correct, or is that one you'd just as soon take for--

WEBSTER: No, that's basically correct, Mr. Chairman. And it's just another indicator of interest leading toward capability.

SENATOR GLENN: Where is Iraq getting foreign assistance in its nuclear program?

WEBSTER: Well, prior to the war, the Iran-Iraq war, it was getting its help from Italy and France and the Soviet Union in building its facilities at its Towaitha (phonetic) nuclear research center. Last month, there was a report of cooperation with Egypt, but it was officially denied.

I'm not prepared to comment on that in this forum.

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SENATOR GLENN: One more. In 1974, two Israeli scientists applied for and were granted patents in France and West Germany for a method to produce enriched uranium by using laser beams.

According to an Israeli newspaper account, the method was developed by two scientists from Tel Aviv University, and the defense ministry. An Israeli scientist was quoted as saying that Israeli scientists had been seeking a method of purifying uranium for use in reactors for peaceful purposes.

In 1981, the Israelis were conducting laser isotope separation research at Ben Gurion University. Is Israel today carrying out R&D on uranium enrichment? What can you tell us about that?

WEBSTER: Well, it is carrying out research. It's at a very low level of funding. The Israelis did not expect a significant increase in laser isotope enrichment funding unless the government decided to build nuclear powered reactors. So I suppose that would be another indicator we would be watching closely.

SENATOR GLENN: If there's any additional information on that you could supply for the record, we'd appreciate it.

WEBSTER: Yes, I will, Mr. Chairman.

SENATOR GLENN: My time on the first round is up. Senator Roth?

SENATOR ROTH: Thank you, Mr. Chairman.
Mr. Webster, in your opening testimony you make
reference to the fact that there is a voluntary missile
technology control regime that's been signed by, I think, seven
countries—six NATO countries and Japan.

You also mention in your testimony that there are a number of firms in Western Europe that have a well established

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record of supplying equipment and technical assistance to third world ballistic missile programs.

Are any of these well-established firms in countries that have signed these agreements, and are those companies identified publicly or is that classified information?

WEBSTER: It's a little of both. I think, Senator Roth, the best way for me to handle that would be to offer to provide the details of answer to your question in a private briefing or closed session or for the record under appropriate classification.

SENATOR ROTH: Could you answer this question, and I don't want you to answer anything that you feel is not in the interest of your agency.

But are any of these well-known firms located primarily in countries that have signed this agreement?

WEBSTER: Yes. I can answer that much. There are companies within countries that are signatory to the agreements.

SENATOR ROTH: Do those countries--are we aware of whether or not any effort is being made to prevent sales so that they are in good faith compliance with this agreement?

I guess what I'm trying to get at--

WEBSTER: Yes, it's a very valid question. I'm trying to figure out how I can answer that properly in this kind of a session. And perhaps the other witnesses on the policy side can give you some indication of what they have been told about it.

Certainly we have seen some examples recently, not in the nuclear area but in the chemical and biological area, where both revisions in local laws and moral suasion through publicity has turned some of those companies down in their effort to provide that kind of assistance. Turned them down means slowed them down.

SENATOR ROTH: Well, it seems to me that if this agreement is to mean anything, that it's certainly appropriate for those countries to take the kind of action that would prevent the disclosure of this technology. Otherwise, it seems to me, we've entered into agreement that not only has no teeth but no effect.

WEBSTER: I agree with you completely, Senator.

SENATOR ROTH: Would it be--maybe I'm getting again

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into policy. Would it be helpful, in your judgment, if these companies became known publicly as at least one measure to help put some restraints on their activities?

WEBSTER: I can see no real down side to that. I think there is a policy question of who should do the publicizing. But I can see no down side to pointing out what countries are doing contrary to the--companies are doing contrary to the policy of their own country.

SENATOR ROTH: Has any effort been made to your knowledge to arrive at any agreement to establish any kind of guidelines, be it voluntary, or how it will be enforced, how compliance will be met.

WEBSTER: I don't know the answer to that question, Senator.

SENATOR ROTH: Let me ask you a question about your own agency. Have you adequate funds in your judgment to follow the proliferation of this technology, or have you had to--are you undermanned and--

WEBSTER: I think in general the Congress has been very general with us in this area, particularly in the nuclear side. We're going to come on more difficult times.

I mentioned in my opening statement some of the complexities now of procurement of this type of technology in Third World countries. Some of the types of weaponry are more difficult to detect than others. That is, I've given previous testimony on how difficult it is to identify chemical and biological weapons production facilities because they're so similar to legitimate facilities such as pharmaceutical or fertilizer plants.

As those weapons come into greater demand, we're going to have more pressure on ourselves to be able to identify— locate and identify those facilities. It comes down in the end to what level of our confidence is sufficient for you and the policymakers to take action, whether we can give you—we could only tell you the level of our confidence. And I can't really complain about the resources for this particular effort.

SENATOR ROTH: Very good. Let me go back to your testimony. As I recall, you mentioned one Indian student who attended one of our institutions and acquired technology that was useful in India's program to move ahead on nuclear matters.

Is that an isolated instance? Or are there many instances where those who come here to study or on any kind of exchange have been a source of high-tech that's helped their

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native countries to proceed, and if so is it of such serious moment that this ought to be something we try to address legislatively?

WEBSTER: I'm not in a position to say whether it should be addressed legislatively, but it is certainly a problem which has to be carefully monitored.

In the scientific community there's a great built-in pressure to share, particularly at international levels. And much of the technology that goes into proliferation of nuclear and chemical and biological weaponry has a dual use that is completely legitimate, and advances quality of life around if properly used.

So it is--I think the challenge is to devise ways to detect when that technology could be converted to illegitimate purposes, and knowing when it has been converted for that purpose, and on the first side, when you know that it could be converted, deciding whether or not you want to let it out at all, or under what circumstances.

SENATOR ROTH: Well, my time is up, but I'd like to ask you one last question in this same area. Are you aware as to whether there are any guidelines or requirements guiding the universities and other institutions as to whether or not foreigners should be permitted to study there or become involved in their activities? Or is this left pretty much to the discretion of the individual institution?

WEBSTER: I believe that there are very few guidelines of this nature in existence. Some of the other witnesses may have more knowledge of this.

If you're talking about fresh research being conducted on the campuses, I doubt there are very many, if any, limitations on. That's only when we identify the potential of that research that the governmental interest comes to bear.

And I'm not entirely conversant with how that is conveyed to the scientists on campus. But I doubt that there's very much local university control over that.

SENATOR ROTH: Well, certainly we don't want to do anything to inhibit the access of foreign students to our institutions.

At the same time it does seem to me that there ought to be some kind of guidance by the federal government as to what should be done in cases where technology could be utilized in the proliferation.

So I appreciate very much your response, Mr. Webster.

SENATOR LIEBERMAN: Judge Webster, I regret that I

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had to step out for a moment to attend another hearing during your opening statement, but I have had an opportunity to read it and I thank you for it.

And I just want to say for the record how important it is that you as director of the Central Intelligence Agency are coming forward in a public forum to talk about these issues, because I think it contributes immeasurably to the formation of policy by Congress, not to mention the executive branch, and in that sense contributes to our efforts to achieve a more peaceful world. And I appreciate very much what you're doing.

If I may begin with a very general question, just to create the context, which countries do you believe at this time are developing nuclear explosive capabilities?

WEBSTER: Senator, having just complimented me for coming out in the open, you ask a question that I am not prepared to answer in an open forum. But I will be happy to supply information, either in proper classification for the record, or in a private session on this one.

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SENATOR LIEBERMAN: Fine. Nobody's perfect. Thank you. Let me try another one. Let me ask this question. What is the possibility that terrorists may develop or acquire nuclear weapons from proliferating nations?

WEBSTER: This has been a matter of great concern to all of us for at least a decade. We followed it very closely when I was director of the FBI, and were very much concerned that this type of terrorist threat would introduce an entirely different dimension, whole cities being held hostage.

I don't think we're there yet. But I can see a degradation or degrading of control as these capabilities pass out of the hands of the five or six major powers who develop them and other countries who then develop the capability and then sell that technology, as is taking place at the present time may ultimately find its way into the hands of people who don't care, and who will make that technology available to terrorist groups who engage in activities that they support through state-sponsored terrorism.

I must say, however, that I'm really less concerned about the immediacy of that problem than I am about terrorists getting control over other forms of weaponry, including chemical and biological weaponry, because it requires less technology. They don't have to be as good at producing it.

It generally is a kind of material that can be transported with less risk of detection. And besides that they have a whole range of stockpiles of rockets and other types of conventional weapons that are at their disposal and do about as much damage as they want to see done.

But we cannot discount this ultimate threat. And I think that in the intelligence, through counter-terrorist intelligence collection, must be very, very alert to the possibility that nuclear technology can fall into the hands of terrorists.

We have--I think--I know it's no secret that for some time, we have battlefield nuclear weapons that can be carried on the backs of soldiers. So that type of weapon would be very

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attractive to a terrorist, provided they could get their hands on a completed weapon.

And it's my own view that, with so much technical information on nuclear devices being available in our public libraries, probably the key to controlling and reducing the risk lies in controlling the fuel itself, the plutonium and the enriched uranium.

SENATOR LIEBERMAN: Judge Webster, do you believe from the information you have that the Soviet Union shares our concern about the proliferation of nuclear weapons?

WEBSTER: Well, we're beginning to hear those noises, and they are very welcome expressions of concern.

We have been cooperating with them for several years at various international fora, the International Atomic Energy Agency. It does, as a supplier, require certain safeguards on its specific exports.

I think that more recently--it's difficult for me to separate nuclear and emerging biological and chemical warfare capability. These are all the kind of threats that I think major superpowers such as the Soviet Union and the United States have to pay attention to.

Proliferation is a major problem. It gets out of control, the people that can suffer the most from that can be the superpowers.

SENATOR LIEBERMAN: Let me turn now for a moment to the West. Have we shared information with our allies about the involvement of companies within their territories in nuclear proliferation?

WEBSTER: Yes, we'll have, and we'll try to continue that dialogue.

SENATOR LIEBERMAN: In your best judgment, how many countries do you think are likely to possess nuclear-powered submarines in the next decade, let's say?

WEBSTER: Well, as you know, Senator, there are five countries which currently build nuclear-powered submarines--the United States, the Soviets, Great Britain, France, and China--and I think there is no plan we've detected from any of those countries to veer away from continuing to build and operate nuclear-powered submarines.

India has one leased submarine, which it acquired in 1988. It might be moving toward getting a few more nuclear-powered submarines in the next few years. To the extent that it does so I suppose there'll be pressure on China and other

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suppliers of weaponry to provide neighboring countries with offsetting capability.

The Brazilian navy minister has stated that Brazil's not building nuclear submarines at this time, but he thought that kind of information was vital to the development of any country. He said that he doesn't expect Brazil to have indigenously built nuclear submarines in this decade, but hopes maybe to begin construction on them in the beginning of the next century.

We're not hearing very much in Argentina. They lack, in all probability, the economic resources to even consider working on a project as expensive as an indigenously produced nuclear-powered submarine within the next 10 years.

SENATOR LIEBERMAN: Judge, the Middle East is clearly one of the most unstable regions in the world, and Libya one of the most unpredictable and unstable countries in that region, and in the world.

Do you believe that the Libyans now possess or will soon possess the capability to, for instance, attack Israel by air?

WEBSTER: Yes, I do. It possesses the capability to attack Israel by air, although there are limitations to it.

I think I should defer to the chairman on matters of this kind. But it's my understanding that range of these long-range bombers depend on their trajectory.

And if they go up high enough—they have to go up high in order to expand their range, when they do that they increase the risk of air interdiction, either from the ground or from the air.

And so some would argue that they lack the low-flying capability to attack Israel. But in a pure sense, they can reach it. Whether they get shot down in the process is a matter of military technology that I'm not competent to testify on. And some of these would require air fueling in order to assure a safe round trip.

But it's a threat. And it shouldn't be considered anything else but a threat.

SENATOR LIEBERMAN: One final question, returning to the Soviet bloc, do you have reason to believe that any other Eastern European nations are seeking to develop their own nuclear weapons capability?

WEBSTER: Well, Romania claims that it could but doesn't want to. I think I shouldn't comment further on it.

SENATOR LIEBERMAN: Okay. Thank you. My time's up.

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SENATOR GLENN: Thank you very much. I wanted to go back a little bit and ask some questions that I wasn't able to ask before.

I asked about the research in Israel and their development of uranium enrichment. I'd like to follow that on with another question about krytrons (phonetic). Krytrons are small, very fast-acting electrical switches capable of switching very large currents at high voltages with very good timing, and they're a key element in nuclear weapons.

They fire the detonators in the high explosive system of a nuclear weapon, and they can also be used for other purposes, for lasers, other missile development.

But according to U.S. news accounts published in '85, Israel admitted obtaining a number of krytrons over the period '79 to '83. The Israeli defense ministry claimed the devices were used only in conventional research and development and testing equipment.

Nevertheless, federal prosecutors in Los Angeles indicted a U.S. citizen for illegally exporting 810 krytrons to Israel between 1980 and '83. Israel later returned some of these unused krytrons.

But what can you tell us about Israel's use of krytrons? Did they acquire those? Do you think they're using them in their nuclear program? Or what is the status on that?

WEBSTER: Well, they have attempted to acquire them. I believe that they have successfully acquired some. They've returned others that were illegally sold into Israel.

I have to be a little more careful about this one because while krytrons, which is sort of a small, fast-acting electrical switch, is one of the key devices in firing the detonators in a nuclear weapons high-explosive system, it does have other uses. And I don't think we can draw any firm inferences from the situations you've described.

But it is the kind of thing that we have to watch

But it is the kind of thing that we have to watch very closely, and it often leads us to judgments about intentions and capabilities.

SENATOR GLENN: We followed in Pakistan's efforts some years ago, and they claimed they were going to use them for strobe lights for runways, and by our calculations I think they had enough for roughly 400 airports or something like that that they were going to build with the use of their krytrons.

Will Pakistan be able to acquire a nuclear power plant through foreign sources, such as Soviet Union or China? I think, Mr. Chairman, that's a question I probably should ask to defer on until another means of responding to you.

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SENATOR GLENN: Another one that's along a little technical line also.

In a late April press conference held by the Bundestag investigatory committee, German investigators reportedly confirmed exports of a tritium collection and purification facility, zirc alloy tubes, uranium hexafluoride containers, and fuel fabrication equipment to Pakistan.

The ongoing investigations of exports of nuclear equipment or material from West Germany have focused on two companies, NTG and PTB, and the German criminal justice system, they were looking to charge the suspects with violating German law banning military exports to regions of conflict. Now, this would be a more serious charge than that of violating German export regulations.

Pakistan may have sought the tritium recovery equipment to remove tritium from heavy water at its CANDU-type (phonetic) reactor at Karachi, although the West German investigators recently contradicted claims of peaceful use. A buildup of tritium in the heavy water moderator in such reactors is a radiological health hazard.

In your view, is this information about Pakistan's acquisition of tritium and tritium recovery equipment correct?

WEBSTER: That corresponds, Mr .Chairman, with information that has come to me, although those facts are mixed with charges that I don't know have been substantiated.

Clearly Pakistan is engaged in developing a nuclear capability. What creates problems for the United States is whether that capability has reached a point that it implicates various amendments that apply to other systems and relief for Pakistan.

SENATOR GLENN: Switching countries, are there developments of concern from a nuclear proliferation standpoint in South Africa?

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WEBSTER: Well, South Africa has an unsafeguarded uranium enrichment plant at its Valendaba (phonetic) nuclear facility. It started operating a pilot enrichment plant in 1975, and it's completing a commercial-scale enrichment plant. Although South Africa has used the pilot enrichment plant to supply enriched fuel for its safeguarded reactor, we are concerned about the unsafeguarded enriched material that has been and will continue to be produced at the plant.

SENATOR GLENN: Let me return to the line of questioning that Senator Lieberman was on, and I'll follow up with a question that follows on with his last question.

Has China ever supplied unsafeguarded heavy water to any other nation, to your knowledge?

WEBSTER: It seems to me that one of their officials acknowledged sending some heavy water to Argentina some years ago. If I'm not correct in my recollection, I'll correct it for the record. But I'm informed the Argentines denied it.

SENATOR GLENN: GAO concluded a study for our committee last year which found very significant inadequacies in foreign visitor controls at our nuclear weapons laboratories. I know we all had concerns about this. Have you followed up any as far as what potential proliferation threat this might pose?

WEBSTER: I'm aware of the report. I can't give any firm statement as to what follow-on has taken place. It's certainly an area of concern and vulnerability that should be addressed.

SENATOR GLENN: You mentioned, you commented on the possibility earlier that terrorists may develop or acquire, what is the possibility that terrorists may develop or acquire nuclear weapons from proliferating nations. You talked about that just a little bit, but could you expand on that just a

WEBSTER: I think I've said about all that I know on that Mr. Chairman. It is a possibility, and the possibility increases as the proliferation increases, as the capabilities and technology fall into less responsible hands. There is at least for the moment sort of the why buy a cow and eggs when milk is so cheap idea that there are so many other alternative weapons more readily available and requiring less technical capability, that that I think has slowed the process of terrorists seeking to acquire this kind of capability, althrough even in the United States there are a couple of dozen

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nuclear terrorist threats a year, none of them having any validity.

But we can't discount the drift and the trend, and must be very alert to the possibility that a sophisticated terrorist group enjoying the sponsorship of a country which has developed that technology may come into possession of particularly smaller nuclear devices and have the fuel to energize them.

SENATOR GLENN: Let me skip down here to one other question since my time is almost up.

Can you identify which third world space and missile programs overlap, you indicated in your earlier statement that there was some overlap between those programs.

WEBSTER: Well as I'm sure you realize, those countries that are engaging in an overlap do try their best to keep that fact a secret, and this is probably not the forum for me to discuss it, but I would be happy to again, make the same offer for a classified briefing or response.

SENATOR GLENN: Senator Roth.

SENATOR ROTH: Mr. Webster, what do we believe South Africa's primarly potential nuclear delivery system to be?

WEBSTER: I think I'm in the same position, Senator Roth, and I think that I would like to defer that question to be answered either in classified record or private briefing.

SENATOR ROTH: Okay, that's all the questions I have, Mr. Chairman.

SENATOR LIEBERMAN: Judge Webster, let me ask you a question.

WEBSTER: Your question was South Africa or China, I want to be sure that I answer that.

SENATOR ROTH: In reference to South Africa.

WEBSTER: Yes, my answer is the same.

SENATOR LIEBERMAN: Judge, has the CIA or U.S. Director appointed a single high level official to oversee all proliferation issues?

WEBSTER: Yes, Senator, the Deputy Director for Intelligence, who oversees three or four of our major

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analytical divisions has that responsibility. The various offices, Office of Special Missions, Office of Global Issues, and a number of other divisions that focus their expertise in particular ways all report through the Deputy Director of intelligence and he has that responsibility.

SENATOR LIEBERMAN: In your testimony, you stated that the countries that a few years ago were wholly dependent on foreign suppliers for their own missile programs are not retransferring technology to newer development efforts. Can you identify the countries that are involved in that transition?

WEBSTER: I'm afraid I'm circumscribed by the same problems in an open hearing.

SENATOR LIEBERMAN: I'll try an other one. A recent press report alleged that several United States' provided equipment to a facility to Iraz involved in that country's ballistic missile development program. Do you know if this is true, and more generally, does our intelligence community monitor the activities of U.S. firms that may be missile technology suppliers.

WEBSTER: We always have the problem of, I don't collect domestic intelligence. But we do work closely with the FBI and the U.S. Customs Service for any indication that a United States' firm might be involved in missile proliferation. If we pick it up through assets abroad, that information is conveyed back to the FBI and the Customs Service to be worked domestically in this country. That is a high and very good level of cooperation between our agencies, but that's about as much as I can say about it here.

SENATOR LIEBERMAN: Can you answer the question of whether it's true that any American firms participated in the development of that facility in Iraq?

WEBSTER: I know the article you are talking about, I'm personally not aware of any information that suggests first that it was a witting participation or even that it was in fact true. So much of that kind of technology can go through diversion where the equipment or facilities or even the technology pass to people who are authorize it who then through various processes divert that technology to other places. So I can't give you any solid information about it. I know it's being persued, but I don't know the answer to it. I don't know that it is true.

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SENATOR LIEBERMAN: You mentioned in your testimony that Iraq has increased the range of their SCUD missiles by reducing the weight of their warheads. Is that a difficult process?

WEBSTER: Well it does involve some tinkering with the guidance system's stability of the missile. But it's not a major deal. And I know that in some other areas we have talked to other countries who have had shorter range missiles that they could make longer, and longer range missiles that they could make shorter, depending on how much accuracy they want to have at the far end. I think that Iraq is believed to have practically doubled its range by lowering the payload.

SENATOR LIEBERMAN: What in your estimate is the range of their missiles now, the outer limits of how far they might reach?

WEBSTER: Well, I believe the SCUD is about 300 kilometers under normal circumstances. So you can extend that out if you want. I'm not sure what type of missiles you are talking about. We use, I think the general protocols are that a thousand kilometers, below that is considered to be short range missiles, and below 300 kilometers are generally not under any control regime. But there are a number of missiles that are in that 300 to 600 kilometer range that are out there for use in third world countries.

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SENATOR LIEBERMAN: Still in the Middle East, can you expand on your statement that Israel's recent launch of a satellite may have fueled regional desires for an indigenous missile production capability?

WEBSTER: I think when they launched their satellite it had a lot of people worried that they were testing a missile rather than a reconnaissance satellite. Some of the same launch capabilities are involved. Some of the same technology levels were involved. It made a number of their neighbors very nervous about what comes next. And I think I can't go much beyond that answer than to say you get an immediate response these days in that part of the world. If one country can demonstrate a capability, the others are busy trying to catch up.

SENATOR LIEBERMAN: Judge, recent legislation has been introduced that would impose sanctions on countries which violate the provisions of the MTCR. If you are aware of that legislation, do you have an opinion on it, how effective do you believe it would be.

WEBSTER: I really should defer the answer to that question to the Administration policy makers. It calls for policy. There are some down sides to sanctions from an intelligence collection point of view, which I'm not at liberty to discuss here. But I guess I happen to believe that unless there is some element of truth to legislation, the history of compliance has not been particularly reassuring.

The down side of sanctions is that you inevitably get into a discussion of the intelligence that supports the view that there has been a violation. But we have to find some way to accomodate our protection source's methods to the need to educate the world on infractions that are leading to world instability.

SENATOR LIEBERMAN: The Bonn government as you know has recently admitted that West German firms were involved with

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the Libyan chemical weapons facility at Rabka (phonetic), but that admission obviously came only after a series of embarrasing press reports.

To your knowledge have similar reports stymied other third world missile programs?

WEBSTER: Well if you had not asked me to go beyond my generalized answer, I think that wherever there has been exposure, there has been a tendency for those who has skirted the edges of their own laws or taken advantage of loopholes in the law to slow down their activity.

There is indeed a moral suasion available on the world scene and we have seen examples of how it works, not necessarily indefinitly. Certainly I think the German government should be complimented for seeking tighter laws, as well as moral suasion. But the biggest weapon we have these days I think is to draw attention to business who proport to be legitimate who are engaging in activities which threaten the security in the world.

SENATOR LIEBERMAN: My time is about up, I will yield to the Chairman.

GLENN: Thank you, Senator Lieberman.

How do you define a missile as being nuclear capable, and which ballistic missiles under development in the third world meet that definition?

WEBSTER: Well the MTCR defines a nuclear capable missile as one that can deliver a 500 kilogram or 1,100 warhead a distance of 300 kilometers.

While this threshold is a reasonable general minimum standard for a nuclear warhead, each country trying to mate a nuclear weapon to a missile will have its own design specifications and limitations that will either fall under or exceed that standard. That's about as much as I can say about it in a public forum.

GLENN: Okay. You stated that there are some 15 nations that will be producing ballistic missiles by the year 2000. Is that a pretty firm estimate, are there any additional nations you can see that might get that capability?

WEBSTER: Well there are some countries that are capable of developing ballistic missiles but for political or economic reasons have chosen not to do so. If they get caught in the middle of a regional conflict or potential for conflict, they may decide for reasons of self defense that they want to get into the act and play with the big fellows.

GLENN: Of concern to us also has been the fact that there might be chemical weapons used on that. You commented on that in your previous testimony of course earlier.

WEBSTER: I think there's a very high probability that chemical weapons would be used by such countries and others in advance of nuclear capabilty, because it's not that tough to do.

GLENN: You testified on that before. You had excellent testimony, I remember you said you could have a credible chemical weapons plant in an area the size of this room.

WEBSTER: That's right. And you could convert it to a legitimate facility in eight or twelve hours, and put it back when the heat's off.

GLENN: The product of that kind of a laboratory could be used as a devastating weapon on a missile as well as a nuclear weapon.

WEBSTER: I think those SCUDs are just sitting out there, it's an option, it's currently available.

GLENN: How accurate do these missiles need to be in order to be militarily effective? Can we tell what type of warhead will be used on a missile if we know that missile's accuracy?

WEBSTER: I think the answer to that is no, because there are so many variations, such as the one that Senator Lieberman asked about where they modify their warhead to achieve a different range capability.

GLENN: What's your definition of short or long range missile?

WEBSTER: Well the MCTR I think defines 1,000 kilometers or above in the short range. I think it goes 1,000 to 3,000 kilometers is in the short range category.

GLENN: We can ask Mr. Lehman about that later. I think the arms control people have very definite ranges that they specify for short, intermediate and long range missiles.

WEBSTER: Yes they do, and I think that's a thousand kilometers, one to three. And intermediate would be between 3,000 and 5,500 kilometers, and intercontinental above that.

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GLENN: You mentioned that space launch vehicles can be converted into ballistic missiles. What's needed in order to make that conversion, just a different guidance system?

WEBSTER: That's my understanding.

GLENN: And can other military missiles such as surface to air missiles be converted into surface to surface missiles, have you seen any of that going on?

WEBSTER: I'm informed that it can be done, it has been done, but I can't specify in an open forum.

GLENN: Okay. Do you believe, what are your feelings about cruise missiles, do they pose a significant proliferation threat compared to ballistic missiles in the next decade or so?

WEBSTER: I guess on that one, I'm in a sort of watch and see mode. The additional technology that's involved there would seem to me to be an impediment to rapid development of cruise missiles.

GLENN: Our technology and that of the Soviets is going ahead quite rapidly in that particular field, that's no secret, and the question was whether you felt that some of these third world countries are making the same kinds of strides that we and the Soviets have both been making. I know they are very highly technical guidance systems that we have to have to make those systems work. I would presume that most third world countries do not have that capability, at least not yet.

WEBSTER: When we talk about acquisition, we have to sometimes distinguish between getting a system or getting an indigenous production capability.

As you know this also depends upon global positioning satellite systems for the use of cruise missiles. And as that proliferates we could probably see a trend towards cruise missiles. It would be more likely in my opinion that third world countries would seek to acquire the whole system if it would be made available to them by another country rather than to go the hard route, at least at this time. They have enough on their plate.

SENATOR GLENN: When we find something wrong around the world we are going to send a demarche to one of these foreign governments about the activities of their firms and the individuals. Do you get involved with that, is your advice counseled on that?

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WEBSTER: We are very much involved. Our approach is to supply reliable intelligence and get it into a shape that can be used by our policy makers in making these demarches. And from time to time we are of assistance in trying to seek through our own contacts and liaison clarification of statements that have been made to our officials or public statements that are ambiguous in their inference with respect to missiles and to try to seek clarification in that way.

We can be used in other ways, but I want to emphasize that the intelligence community does not have a policy making role in this area.

GLENN: Thank you. My time is not up yet, but I think in the interest of moving on, we are going to move along, we have other witnesses here, we'll have to go ahead. Do you have any more questions?

Judge, thank you very much. We may have some additional questions to present from other members of the committee, and we appreciate your being here this morning. This has been a long session and we appreciate your willingness to share this information with us this morning. You are very, very helpful.

WEBSTER: Thank you, Mr. Chairman.

GLENN: Thank you very much.

END WEBSTER TESTIMONY; END HEARING HIGHLIGHTS

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